UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,671	07/09/2003	John Frederick Porter	D1815-00068	9831

8933 7590 05/17/2005

DUANE MORRIS, LLP
IP DEPARTMENT
ONE LIBERTY PLACE
PHILADELPHIA, PA 19103-7396

EXAMINER	
PIERCE, JEREMY R	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,671	PORTER ET AL.	
	Examiner	Art Unit	
	Jeremy R. Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) *10-21 and 30-35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 22-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. 12/17/04, 2/18/05, 4/6/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on February 18, 2005 has been entered. Claims 1, 6, 8, 9, 25, 26, and 29 have been amended. Claims 1-35 are currently pending, with claims 10-21 and 30-35 being withdrawn from consideration. Applicant's amendments and arguments are sufficient to overcome the 35 USC 112 1st and 2nd paragraph rejections set forth in sections 9 and 11 of the last Office Action.

Information Disclosure Statement

2. The information disclosure statement filed April 6, 2005 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the listed reference have already been considered by the Examiner, and are listed on PTO-892 dated November 26, 2004. There was no need to file the IDS dated April 6, 2005. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-9 and 25-29 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 25, and 26 have been amended to recite the resinous coating is applied to the warp and weft yarns before said reinforcement is applied to a matrix. Applicant asserts that this limitation is supported in paragraph [0090]. While paragraph [0090] teaches various methods of producing a cementitious board, it is silent with respect to the new claim limitation. Nothing is disclosed as to when the resinous coating is applied as compared to the time when the material is bonded to a matrix.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-5, 7, 9, 22, and 25-29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kobayashi et al. (U.S. Patent No. 4,460,633).

Kobayashi et al. disclose a reinforcement fabric comprising warp and weft yarns that are soft twist multifilament yarns (column 2, lines 5-20). The weft yarns have a greater amount of twist than the warp yarns (Example 1). The matrix resin applied to the fabric after it has been treated with adhesive agent (column 3, lines 32-44) would comprise Applicant's claimed resinous coating. Although Kobayashi et al. do not teach the coating weight distribution ratio of less than 2.0:1, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. multifilament warp and weft threads) and in the similar production steps (i.e. weft threads twisted more than the warp threads) used to produce the reinforcement fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed ratio of coating weight would obviously have been provided by the process disclosed by Kobayashi et al. Kobayashi et al. teach impregnation of the matrix resin into the warp becomes easy (column 2, lines 39-43). Kobayashi et al. also teach that inhibiting impregnation of matrix resin to the warp is preferably avoided (column 1, line 67 –column 2, line 2). Finally, Kobayashi

et al. teach that improved strength is obtained with matrix resin impregnated into the warp yarns (column 3, lines 32-36). Therefore, It would have been obvious to a person having ordinary skill in the art at the time of the invention to increase the amount of coating on the warp threads in order to increase the strength of the fabric, as taught by Kobayashi et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

With regard to claims 2 and 25, Kobayashi et al. teach providing a warp twist between 5 and 40 times/m (column 2, lines 57-58). With regard to claims 3 and 25, Kobayashi et al. disclose a weft twist of not more than 40 turns/m, but preferably not more than 20 turns/m (column 3, lines 2-4). With regard to claim 4, Kobayashi et al. teach glass fiber for both warp (column 2, line 53) and weft (column 2, line 66). With regard to claim 5, Kobayashi et al. teach a nonwoven scrim fabric (Figure 2). With regard to claims 7 and 26, drawing the warp yarns in tension is a method of manufacturing limitation, not a product limitation. With regard to claims 9 and 29, the adhesive added to the weft yarns prior to formation of the fabric (column 2, lines 10-11) would act as a hydrophobic or oleophobic agent.

Claim Rejections - 35 USC § 103

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. in view of Endo et al. (U.S. Patent No. 4,581,275).

Kobayashi et al. teach that the fabric is a reinforcement, but do not teach using it in a cementitious panel. Endo et al. teach that similar fabrics are used to reinforce cement (column 1, lines 5-18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the fabric of Kobayashi et al. to reinforce cement in order to derive greater usage from the fabric, as taught by Endo et al.

9. Claims 6, 8, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. in view Endo et al. as applied above, and further in view of Wu et al. (U.S. Patent No. 5,038,555).

Neither Kobayashi et al. nor Endo et al. teach using a PVC coating. Wu et al. teach that fiberglass scrims used to reinforce concrete are coated with PVC plastisol (column 8, lines 2-4). It would have been obvious to a person having ordinary skill in the art at the time of the invention to coat the fiberglass scrim of Kobayashi et al. with PVC in order to make the fiberglass reinforcement suitable for reinforcing cement, as taught by Wu et al. With regard to claim 8, Wu et al. teach providing lubricity to the glass fibers before applying the PVC coating (column 10, lines 11-34).

Response to Arguments

10. Applicant's arguments filed February 18, 2005 concerning the prior art rejections have been fully considered but they are not persuasive.

11. Applicant argues that Kobayashi et al. teach that the adhesive agent is impregnated into the weft alone. While this may be true for the adhesive agent of

Kobayashi et al, the matrix resin applied thereafter is coated on both the warp and weft fibers (column 3, lines 32-44). This resin meets Applicant's claim limitation of a "resinous coating" because it is a resin and it is coated onto the fibers. The new recitation in the claims that the coating is applied "before said fabric reinforcement is embedded within, or adhesively or mechanically bonded to said alkaline matrix" is a recitation of an intended use of the product. Nothing precludes the matrix resin of Kobayashi et al. from equating to Applicant's claimed "resinous coating" because said matrix resin is a resin and it is coated onto the fibers.

12. Applicant argues that no adhesive coating is applied to the warp yarn, so Kobayashi's coating weight distribution equals infinity. However, the Examiner is not using the adhesive agent of Kobayashi et al. to meet the claim limitation of a resinous coating. The Examiner is using the subsequent matrix resin coating for this limitation. This is not precluded by the claim limitation of the ratio being measured before the fabric used in a matrix because such a recitation is of an intended use of the article.

13. Applicant argues that Kobayashi et al. seek to impregnate the exposed fibers in the warp yarns with matrix material whereas Applicant seeks to avoid impregnation of the warp yarns by the matrix. However, the recitation of a "resinous coating," by definition, does not preclude matrix materials.

14. Applicant argues that claim 22 is not taught by the prior art because Kobayashi et al. do not suggest pulling the warp yarns in tension in a machine direction. However, this limitation of claim 22 is a process of manufacturing step. Claim 22 is a product claim. "[E]ven though product-by-process claims are limited by and defined by the

process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The product created by putting tension on the warp yarns while coating is not an unobvious difference from the Kobayashi et al. reference. The ultimate structure of the final product is similar.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571)

272-1479. The examiner can normally be reached on Monday-Friday between 9am and 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRP

Jeremy R. Pierce
May 5, 2005

ELIZABETH M. COLE
PRIMARY EXAMINER